Experimental Public and Marine Grids for East and West Micronesia in the National Digital Forecast Database (NDFD)
Product Description Document
March 2022

Part 1 – Mission Connection

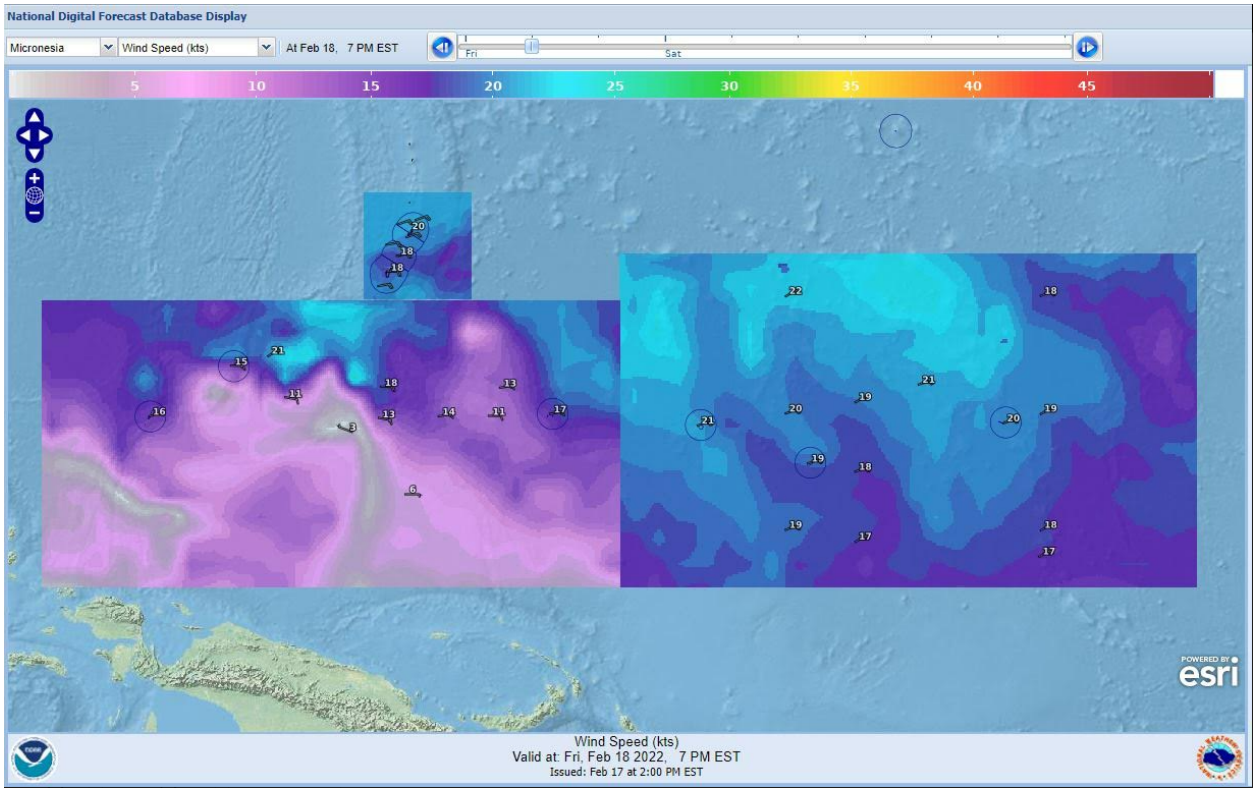
a) **Product Description:** Weather Forecast Office (WFO) Guam to produce experimental public and marine grids for east and west Micronesia for inclusion into the National Digital Forecast Database (NDFD).

b) **Purpose/Intended Use:** This product will provide necessary support to public, aviation and marine services as an integral portion of Pacific Region's gridded database. This product is an important part of the NWS Weather-Ready Nation (WRN) initiative helping to ensure society is ready for, and responds appropriately to, extreme events. The WRN strategic priority is about building community resilience in the face of increasing vulnerability to extreme weather, water, climate, and environmental threats.

This product will improve service delivery capability consistent with all offices within the National Weather Service (NWS). This product creates, adapts and improves on holistic end-to-end dissemination and messaging. By providing improved decision making information, users can better prepare for by utilizing consistent and timely weather forecasts. Improved community emergency preparedness will thus lead to the avoidance of fatalities from weather dependent events; cost avoidance from unnecessary evacuations and reduced property damage and more rapid postevent recovery.

c) **Audience/Users:** The target audience includes the emergency management community, NWS forecasters and anyone interested in marine and public weather forecasts for Micronesia islands/atolls within the Republic of Palau, Federated States of Micronesia and Republic of the Marshall Islands, and the surrounding coastal waters.

d) **Presentation Format:** The experimental grids will be available for download in GRIB2 format after March 29, 2022 via both https: and ftp: from the NWS Telecommunications Gateway FTP (TGFTP) server at:
tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndfd/AR.micrones/
Visualization of these data will be available on the experimental NDFD map viewer at
https://digital.mdl.nws.noaa.gov



Users can request NDFD data for points using the Internet via NDFD XML Simple Object Access Protocol (SOAP) or Representational State Transfer (REST). The response to the user request is returned in XML format. This service is available experimentally at digital.mdl.nws.noaa.gov/xml

e) **Feedback Method:** Comments regarding this experimental grid in NDFD may be provided via electronic survey:
https://www.surveymonkey.com/r/EastWestMicronesidaGridstoNDFD_Exp2022

General information on accessing and using NDFD elements is online at
vlab.ncep.noaa.gov/web/mdl/ndfd-information-links

For further information, please contact:

Genevieve C. Miller
Meteorologist-In-Charge
National Weather Service WFO Guam
Barrigada, Guam
671-472-0944
genevieve.miller@noaa.gov

OR

Eric Lau

Chief, Environmental Scientific and Services Division
National Weather Service Pacific Region Headquarters
Honolulu, HI
E-mail: eric.lau@noaa.gov
Phone: (808) 725-6013

For general questions regarding the National Digital Forecast Database, please email: nws.ndfd@noaa.gov.

Part 2 – Technical Description

a) **Format and Science Basis:** WFO Guam will utilize National Oceanic and Atmospheric Administration (NOAA)/NWS Environmental Modeling Center (EMC) model data (e.g., Global Forecast System (GFS)) and the Meteorological Development Laboratory's National Blend of Models (NBM) to initiate public and marine grids as a common gridded starting point. This also lays the groundwork for 1) Pacific Region requirements for end-to-end gridded forecasts, an FY22 milestone; 2) Digital Aviation Services Plan to implement gridded aviation forecasts and provide the ability and flexibility to derive Terminal Aerodrome Forecasts (TAFs) from appropriate grids, including ceiling and visibility.

The grids over Micronesia will be produced in a 5km x 5km grid resolution using the NDFD_Oceanic_10K grid.

Here are the lower left (LL) and upper right (UR) coordinates for both domains:

PQW: LL= 0.00N, 129.79E
PQW UR: 12.31N, 154.72E
PQE: LL = 0.00N, 154.67E
PQE: UR = 14.26N, 179.60E

b) **Training:** No additional training is required to generate the product.

c) **Availability:** Detailed information about the NDFD is also available online at https://vlab.noaa.gov/web/mdl/ndfd.